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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/562,829

12/29/2005

Shinji Ishida

012774-005

6473

21839 7590 06/15/2010  
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EXAMINER

OSINSKI, BRADLEY JAMES

ART UNIT

PAPER NUMBER

3767

NOTIFICATION DATE

DELIVERY MODE

06/15/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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offserv@bipc.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/562,829	<b>Applicant(s)</b> ISHIDA ET AL.	
	<b>Examiner</b> BRADLEY J. OSINSKI	<b>Art Unit</b> 3767	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 8-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4-13-2010</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 16 is written in difficult English such that the metes and bounds of the claim are not understood. The use of "by" with relation to the holding unit and the movement unit has two connotations in its current place; first, that the holding unit is moved as a result of the movement unit and second, that the holding unit is moved relative to/alongside the movement unit. The Examiner assumes the second meaning was intended. Additionally, the Applicant uses the term "relatively" but does not define a reference point or the two or more objects that move with reference to each other. The claim is interpreted as if it read as follows: A tube connecting apparatus according to claim 8, wherein the shaft and the long hole, when engaged, allow the holding unit to move relative to the movement unit to change the positions of the tubes. Two notes that the Examiner wishes to add to make this dependent claim more allowable is to stipulate that the shaft moves within the hole and that the shaft and hole are engaged during and after movement as well. Currently, they only need to be engaged before movement since they are *allowing* the movement to occur. Secondly, defining the tubes enclosed by the holding unit and the tubes enclosed by the

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movement unit as two different objects so that they can be defined as moving away from each other (such as laterally away from the tube's longitudinal axis).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 8-13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spencer (4,619,642) in view of Babyak (Appliance Manufacturer), Spencer '971 (4,516,971) and Holstein (1,477,265).

a. Regarding claim 8, Spencer discloses a tube clamp apparatus with a placement clamp section 183/184, a movable clamp section 185/186 that pressed down on the tube placed in the placement clamp section 185/186, and a hood section 185d/186d at the movable clamp section to engage the engagement members 183d/184d of the elastic member the placement clamp section to maintain a pressing state upon a tube. Hooks 185d/186d are orthogonal to tubes placed in the placement clamp sections (183a/183b/184a/184b). Further disclosed by Spencer is a cutting unit 99 and a movement unit to move the two holding units 180/182 relative to each other such that the end portions to be connected face each other. (Figures 2-4 and 7)

While Spencer substantially discloses the apparatus as claimed, it does not disclose the hood section having a plurality of divided hook portions in a

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direction orthogonal to a longitudinal direction of a tube placed in the device with one of the portions being elastic nor does it disclose the holding unit having two different sections one with a shaft and the other with a receiving hole for the shaft.

However, Babyak discloses fastening systems and specifically discloses a urethane elastomer between metal fasteners to create a sandwich mount to provide shock protection, vibration isolation and noise control. Holstein discloses a window latch/lock that uses friction to assist in creating a lock. Metal parts of the lock 11 sandwich an elastic member F between them. The elastic member is protruded on one side (that contacts the window pane) and both metal sides 11 and elastic member 11 are arranged in an orthogonal direction to the device it is meant to secure (window pane C). Placing the urethane (of Babyak) or rubber (of Holstein) in such a relation, causes the elastic members to have both sides fixed to the metal section and another side protruding with respect to some of the other hook portions. While Holstein is a different shape, the frictional forces it creates are applicable to different shapes, including hook shape of Spencer.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the hooks of Spencer by sandwiching urethane or rubber in the shape of a hook, but protruding on the side that contacts the device between two metal hooks as taught by Babyak and Holstein as such is a known method of forming a fastener (such as in Holstein) and would

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provide shock protection, vibration isolation and noise control (such as in Babyak).

Spencer '971 discloses another holding system having two parts 17/18 with shaft 36 and hole 35. The shaft and hole are used to keep the mounting blocks in a cooperative relationship (Col.5 lines 60-63). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add a shaft and hole to each holding section of Spencer as taught by Spencer '971 in order to keep the blocks in a cooperative relationship.

- b. Regarding claim 9, Two holding units 180/182 are disposed along a longitudinal direction of the tubes and the cutting occurs between holding units 180/182.
- c. Regarding claim 10, See arrows in figure 7, the movement unit moves holding unit 180 both longitudinally and orthogonally to the tubes.
- d. Regarding claim 11, See claim 2 above.
- e. Regarding claim 12, See claim 4 above.
- f. Regarding claim 13, see Hostein, the bracket D is made of sheet metal (line 26) and the block F is made of rubber (lines 59 and 60) both of which are parallel to each other (figure 2).
- g. Regarding claim 16, see 112 2<sup>nd</sup> rejection above. Spencer '971 discloses the pin and cavity as disengaging once a force pushes them out of alignment. Thus the pin and cavity, when engaged, allow the portions of the holding unit and movement unit to move relative to each other to move the tubes.

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2. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spencer (4,619,642), Holstein (1,477,265) and Babyak (Appliance manufacturer) as applied to claim 1 above, and further in view of Smith et al (Mechanical Engineering).

h. Regarding claim 14, While Spencer and Babyak substantially discloses the apparatus as claimed such as engagement members 183d/184d, they do not disclose the engagement member being made of a resin. However, Smith et al discloses advantages of plastics over metals with regards to mechanical interactions. Specifically plastic gears are lighter, less costly and do not wear as much as metals. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the engagement member of Spencer of a plastic resin as discussed in Smith et al to decrease costs, weight and wear of the device.

i. Regarding claim 15, Spencer discloses rotatable rollers 183d/184d on which the elastic member as discussed in claim 1 above slides along the circumference to maintain engagement with the roller.

### ***Response to Arguments***

3. Applicant's arguments filed 4/13/2010 have been fully considered but they are not persuasive. Applicant argues that teachings of Spencer '971 are not applicable to the main Spencer reference. However, Spencer '971 teaches a pin and cavity arrangement that is disengageable that allows two sides of a device that otherwise move relative to each other to share a joint movement. The Examiner believes such a teaching to be applicable to the other Spencer device for any portions of the two sides

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that share movements at some point during operation. Including any of the parts that make up parts 180 and 184. A cooperative relationship allows minimal actions during use by the operator, once the cooperative relationship is no longer useful, the pin and cavity arrangement of Spencer '971 allows for separation.

Applicant also argues that new claim 15 (it is assumed Applicant means 16) recites patentable material. However, as noted in the 112 rejection above, the pin and cavity engagement does not need to be maintained by the current claim language.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRADLEY J. OSINSKI whose telephone number is (571)270-3640. The examiner can normally be reached on M-Th 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Sirmons can be reached on (571)272-4965. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bradley J Osinski/  
Examiner, Art Unit 3767

/Kevin C. Sirmons/  
Supervisory Patent Examiner, Art Unit 3767